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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/664,993 | 09/18/2000 | Gangfeng Cai | 2039.006100 | 4102 |

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| EXAMINER |
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NOLAN, SANDRA M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1772

DATE MAILED: 05/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Applicati n No.

09/664,993

Applicant(s)

CAI ET AL.

Examiner

Sandra M. Nolan

Art Unit

1772

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 21 April 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: (See the attachment.).
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None.

Claim(s) objected to: None.

Claim(s) rejected: 1-17.

Claim(s) withdrawn from consideration: None.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

ATTACHMENT TO ADVISORY ACTION

Claims

1. Claims 1-17 are pending.

Rejections Maintained

W/D per #23 - 2. The 35 USC 103 rejection of claims 1-12 and 16-17 as unpatentable over Ching (US 5,744,246) in view of Nordstrom (US 3,536,687), as repeated in section 2 of the 13 December 2002 office action (Paper No. 17) is maintained for reasons of record.

W/D per #23 - 3. The 35 USC 103 rejection of claims 13-15 as unpatentable over Ching and Nordstrom with Katsumoto et al (US 6,139,770), as restated in section 3 of Paper No. 17, is maintained for reasons of record.

W/D per #23 - 4. The 35 USC 112 rejection of claims 1-17 for new matter, as represented in section 4 of Paper No. 17, is maintained for reasons of record.

Response to Arguments

5. Applicant's arguments filed in the request for reconsideration dated 21 April 2003 (Paper No. 19) have been fully considered but they are not persuasive.

The arguments in Paper No. 19 will be responded to in the order presented.

On pages 2-3 and 5, applicants argue that the invention relates to "oxygen scavenging walls" characterized by the the structure PET/OSP/PET, where PET is polyethylene terephthalate and OSP is a material containing transition metal catalyst along EMCM (defined on page 15 of the specification) or a similar oxygen scavenging polymer with pendant cyclic olefin groups.

The examiner agrees with these characterizations of the structure of the instantly claimed laminates.

On page 3, applicants argue that Ching is different than their invention because Ching teaches away from "oxygen scavenging walls".

However, Ching teaches that its multilayer composites may be used in bottles and boxes and other barrier packaging (col. 8, lines 43-49). Since bottles and boxes have walls, it is safe to assume that the Ching multilayer composites are useful in walls made of oxygen scavenging materials. This is antithetic to applicants' conclusion that "Ching teaches away from packages having oxygen scavenging walls." [quoted from page 3, first full paragraph of Paper No. 19.]

On page 3, applicants argue that Nordstrom's polymer undergo crosslinking in air and could, therefore, crosslink with other unsaturated polymers in the wall to lower the strength and other properties of the packaging.

However, Nordstrom teaches that its pendant cyclohexenyl-containing acrylic polymers (see col. 2, lines 45-50) crosslink in air without additional resinous materials (col. 1, lines 49-52) and that they are useful in films (col. 5, line 65) which may or may not contain transition metal salts (col. 5, lines 69-74). The reactivity of the Nordstrom films in air, which is commonly known to contain 80% oxygen strongly suggests that interaction with oxygen is taking place. Accordingly, the effectiveness of the Nordstrom polymers in oxygen scavenging systems could be predicted based on Nordstrom's teachings.

On page 4, applicants argue that Katsumoto does not address how to minimize the "drawbacks" of oxygen scavenging walls as discussed on pages 2 and 3.

However, the examiner is not convinced that either Ching or Nordstrom fairly suggest that oxygen scavenging polymers (per Ching) or oxygen-reactive cyclohexenyl-substituted acrylics (per Nordstrom) lead to such drawbacks when used to make articles having walls, such as the packaging articles of Ching.

On page 4, applicants argue that the 35 USC 112 rejection is improper because they have support for their PET/OSP/PET structure in various passages in the specification and that recitation of an core OSP layer would lead one of ordinary skill to understand that the OSPL layer is "substantially coextensive" between the outer and inner PET layers.

However, the application simply does not recite the phrase "substantially coextensive between the inner layer and the outer layer".

The examiner notes that even if the specification did recite the quoted phrase, the PET/OSP/PET structure that characterizes applicants' invention is shown in Ching's Figure 1, where the barrier layer (B) appears on both sides of the oxygen scavenger layer (C). Note that Ching says that its barrier polymer may be PET (col. 6, lines 23-26) and that its oxygen scavenging materials contains cobalt (claim 3 of the Ching patent), so that only the pendant cyclic olefin groups of the Nordstrom polymers are missing from the Ching composites.

To summarize:

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A. The 35 USC 103 rejection is proper because the combination of Ching and Nordstrom suggests applicants' PET/OSP/PET structure because Ching shows PET/scavenger/PET and Nordstrom shows the particular oxygen scavenging polymers (OSP's) that applicants claim.

B. The 35 USC 112 new matter rejection is proper because the phrase "substantially coextensive between the inner layer and the outer layer" is not recited in the application as originally filed.

Conclusion

Any inquiry concerning this communication should be directed to Sandra M. Nolan, whose telephone number is 703/308-9545. The Examiner can normally be reached on Monday through Thursday, from 6:30 am to 4:00 pm, Eastern Time.

If attempts to reach the Examiner by telephone are unsuccessful, her supervisor, Harold Pyon, can be reached at 703/308-4251. The general fax number for the art unit is 703/305-5436. The fax number for after final communications is 703/872-9310. The receptionist answers 703/308-0661.



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